IN THE CLAIMS:

1. (Currently Amended) An impeller pump for a fluid, comprising:

a rotary impeller;

a pump casing defining a first pump channel and a second pump channel, wherein the rotary impeller is disposed within the pump casing and opposes to the first pump channel and the second pump channel, respectively;

a convergence device arranged and constructed to converge the fluid discharged from the first pump channel and the fluid discharged from the second pump channel;

a pulsation canceling device arranged and constructed to cancel pulsations of the fluid discharged from the first pump channel and the second pump channel, respectively; and

an impact reducing device arranged and constructed to reduce impacts produced by at least one of the flow of the fluid from the first pump channel and the flow of the fluid from the second channel;

wherein the pump casing further defines a first discharge port and a second discharge port respectively communicating with the first pump channel and the second pump channel and formed separately from each other, so that the fluid is

discharged from the first and second channels via respective first and second discharge ports and is converged at the convergence device.

2. (Currently Amended) An impeller pump as in claim 1, wherein:

the rotary impeller has a first surface and a second surface opposing to each other, each of the first and second surfaces includes a plurality of grooves arranged in a circumferential direction of the impeller and spaced from each other by a predetermined pitch;

the pump casing further defines a first suction port and a second suction port;

the first pump channel opposes to the grooves of the first surface of the impeller, the first pump channel communicates with [[a]] the first suction port and [[a]] the first discharge port, and the first suction port and the first discharge port are separated from each other by a first partition wall;

the second pump channel opposes to the grooves of the second surface of the impeller, the second pump channel communicates with [[a]] the second suction port and [[a]] the second discharge port, and the second suction port and the

second discharge port are separated from each other by a second partition wall;

the convergence device comprises a convergence channel communicating with the first discharge port and the second discharge port, so that the fluid discharged from the [[fist]] first discharge port and the fluid discharged from the second discharge port converge at the convergence channel;

the pulsation canceling device is arranged and constructed to cancel pulsations of the fluid discharged from the first discharge port and the second discharge port, respectively; and

the impact reducing device is arranged and constructed to reduce impacts of the fluid caused by change of direction of at least one of a flow of the fluid discharged from the first pump channel toward the first discharge port and a flow of the fluid discharged from the second pump channel toward the second discharge port.

3. (Original) An impeller pump as in claim 2, wherein the pulsation canceling device is arranged and constructed to shift a phase of the pulsation of the fluid discharged from the first discharge port from a phase of the pulsation of the flow of the fluid discharged from the second discharge port.

4. (Original) An impeller pump as in claim 3, wherein the pulsation canceling device is arranged and constructed to displace the grooves of the impeller defined in the first surface from the grooves defined in the second surface by a half the predetermined pitch, and the first discharge port and the second discharge port are disposed at the same position in the circumferential direction of the impeller.

5. (Original) An impeller pump as in claim 3, wherein the pulsation canceling device is arranged and constructed to displace the first discharge port from the second discharge port by a distance corresponding to half the predetermined pitch of the grooves of the impeller, and the grooves of the impeller defined in the first surface and the grooves of the impeller disposed in the second surface are disposed at the same positions in the circumferential direction of the impeller.

6. (Currently Amended) An impeller pump as in [[claims]] claim 2, wherein the first pump channel and the second pump channel include terminal ends that communicate with the first discharge port and the second discharge port, respectively,

and each of the terminal ends has at least a part opposing to the grooves defined in the corresponding one of the first and second surfaces of the impeller, and the impact reducing device is arranged and constructed to gradually reduce a sectional area of the part of the terminal end in the rotational direction of the impeller.

7. (Withdrawn) An impeller pump as in claim 6, wherein each of the first and second pump channels has a width in a radial direction of the impeller, the impact reducing device comprises a width decreasing region defined by at least one of the terminal ends of the first and second pump channels, and the width decreasing region is configured to gradually reduce the width of the part of at least one of the terminal ends in the rotational direction.

8. (Withdrawn) An impeller pump as in claim 7, wherein the width decreasing region extends along the rotational direction of the impeller.

9. (Withdrawn) An impeller pump as in claim 7, wherein the width decreasing region extends outwardly from at least one of

the first and second pump channels in a radial direction of the impeller.

10. (Currently Amended) An impeller pump as in claims 6, wherein each of the first and second pump channels has a depth in an axial direction of the impeller, the impact reducing device comprises a depth decreasing region disposed in at least one of the terminal ends of the first and second pump channels, and the depth decreasing region is configured to gradually reduce the depth of the part of at least one of the terminal ends in the rotational direction.

11. (Original) An impeller pump as in claim 10, wherein the depth decreasing region comprises an inclined surface opposing to the grooves defined in the corresponding one of the first and second surfaces of the impeller, wherein the inclined surface is inclined in the rotational direction of the impeller.

12. (Original) An impeller pump as in claim 2, further including at least one communication hole defined in the impeller, the communication hole communicating between a pair of the grooves that are defined in the first surface and the

second surface, respectively, and opposing to each other in an axial direction of the impeller.

13. (Original) An impeller pump as in claim 1, further including a motor section that is arranged and constructed to rotate the impeller.

14. (Currently Amended) An impeller pump comprising:

a rotary impeller having a first surface and a second surface opposing to each other, wherein each of the first and second surface includes a plurality of grooves arranged in a circumferential direction of the impeller and spaced from each other by a predetermined pitch;

a pump casing;

a first pump channel defined in the pump casing and opposing to the grooves of the first surface of the impeller, wherein the first pump channel communicates with a first suction port and a first discharge port, and the first suction port and the first discharge port are separated from each other by a first partition wall;

a second pump channel defined in the pump casing and opposing to the grooves of the second surface of the impeller, wherein the second pump channel communicates with a second

suction port and a second discharge port, and the second suction port and the second discharge port are separated from each other by a second partition wall;

a convergence channel communicating with the first discharge port and the second discharge port, so that the fluid discharged from the [[fist]] first discharge port and the fluid discharged from the second discharge port converge at the convergence channel;

a pulsation canceling device arranged and constructed to cancel pulsations of the fluid discharged from the first discharge port and the second discharge port, respectively;

an impact reducing device arranged and constructed to reduce impacts of the fluid caused by change of direction of at least one of a flow of the fluid discharged from the first pump channel toward the first discharge port and a flow of the fluid discharged from the second pump channel toward the second discharge [[port.;]] port; and

at least one communication hole defined in the impeller, the communication hole communicating between a pair of the grooves that are defined in the first surface and the second surface, respectively, and oppose to each other in an axial direction of the impeller;

wherein the first discharge port and the second discharge port are formed separately from each other in the pump casing.

15. (Currently Amended) An impeller pump as in claim 14, wherein:

the pulsation canceling device is arranged and constructed to shift a phase of the pulsation of the fluid discharged from the first discharge port from a phase of the pulsation of the flow of the fluid discharged from the second discharge port, and

the first pump channel and the second pump channel include terminal ends [[communicates]] communicating with the first discharge port and the second discharge port, respectively, and each of the terminal ends has at least a part opposing to the grooves defined in the corresponding one of the first and second surfaces of the impeller, and the impact reducing device is arranged and constructed to gradually reduce a sectional area of the part of the terminal end in the rotational direction of the impeller.

16. (Original) An impeller pump as in claim 15, wherein the pulsation canceling device is arranged and constructed to displace the grooves of the impeller defined in the first

surface from the grooves defined in the second surface by half the predetermined pitch, and the first discharge port and the second discharge port are disposed at the same position in the circumferential direction of the impeller.

17. (Original) An impeller pump as in claim 15, wherein the pulsation canceling device is arranged and constructed to displace the first discharge port from the second discharge port by a distance corresponding to half the predetermined pitch of the grooves of the impeller, and the grooves of the impeller defined in the first surface and the grooves of the impeller disposed in the second surface are disposed at the same positions in the circumferential direction of the impeller.

18. (Withdrawn) An impeller pump as in claim 15, wherein each of the first and second pump channels has a width in a radial direction of the impeller, the impact reducing device comprises a width decreasing region defined by at least one of the terminal ends of the first and second pump channels, and the width decreasing region is configured to gradually reduce the width of the part of at least one of the terminal ends in the rotational direction.

19. (Withdrawn) An impeller pump as in claim 18, wherein the width decreasing region extends along the rotational direction of the impeller.

20. (Withdrawn) An impeller pump as in claim 18, wherein the width decreasing region extends outward from at least one of the first and second pump channels in a radial direction of the impeller.

21. (Currently Amended) An impeller pump as in ~~claims~~ claim 15, wherein each of the first and second pump channels has a depth in an axial direction of the impeller, the impact reducing device comprises a depth decreasing region disposed in at least one the terminal ends of the first and second pump channels, and the depth decreasing region is configured to gradually reduce the depth of the part of at least one of the terminal ends in the rotational direction.

22. (Original) An impeller pump as in claim 21, wherein the depth decreasing region comprises an inclined surface opposing to the grooves defined in the corresponding one of the first

and second surfaces of the impeller, and the inclined surface is inclined in the rotational direction of the impeller.